

## II. REMARKS

This Response is filed with a Request for Continued Examination (RCE), a one-month Petition for Extension of Time, and the required fees. Applicants respectfully request entry and consideration of the amendments and remarks in Applicants' Amendment filed October 12, 2006.

Claims 1-10 are pending. No amendments to the specification or claims are made at this time. Applicants respectfully request reconsideration of present claims 1-10.

Claims 1-10 are rejected under 35 U.S.C. § 112, second paragraph, for the asserted indefiniteness. This rejection is traversed.

Further to the remarks in Applicants' Amendment filed October 12, 2006, Applicants respectfully maintain that this rejection was overcome by the previously filed amendments to claims 1 and 9. In particular, present claim 1 discloses "substituting CFC 11 in its entirety with azeotropic or near azeotropic foaming agents compositions" (emphasis added) and claim 9 discloses "the substitution of CFC-11 in its entirety with foaming agent azeotropic or near azeotropic compositions" (emphasis added). As previously noted, present claims 1 and 9 are supported, for example, by Table 14 on page 33 of the specification, as the Examples of the present invention do not contain CFC 11 in contrast to the Comparative Example a. Further, the specification discloses that "[t]he present invention relates to azeotropic or near azeotropic compositions to be used as trichlorofluoromethane (CFC 11) substitutes in the foaming field" (Specification, page 2, lines 1-3) and that "the hydroflouropolyether-based mixtures (HFPE), object of the present invention, are characterized by chemical-physical properties such to be

suitable as substitutes of CFC 11." Dependent claims 2-8 and 10 are patentable for at least the same reasons.

For at least the above reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-10 under 35 U.S.C. § 112, second paragraph, for the asserted indefiniteness.

Claims 1-10 are rejected under 35 U.S.C. § 112, first paragraph, for insufficient written description. This rejection is traversed.

Further to the remarks in Applicants' Amendment filed October 12, 2006, Applicants respectfully maintain that specification provides sufficient written description to support the process of the presently claimed invention.

As noted above, present claim 1 discloses "substituting CFC 11 in its entirety with azeotropic or near azeotropic foaming agents compositions" and claim 9 discloses "the substitution of CFC-11 in its entirety with foaming agent azeotropic or near azeotropic compositions." As such, the azeotropic or near azeotropic foaming agents compositions of the presently claimed invention are substitutes for the CFC-11.

Applicants submit that the second paragraph on page 9 of the Amendment filed October 12, 2006, did not confirm that the "instantly claimed blowing agents are not exact substitutes for CFC-11" (Advisory Action, page 2). This paragraph read as follows:

Accordingly, Applicants respectfully submit that these three formulations are very similar to each other and thus have comparable compositions. In fact the % by weight variations are lower than 2.5% and are reduced between the individual compositions. The differences in compositions may be due to the fact that it is difficult, from an experimental point of view, to prepare foaming formulations having the same compositions when different blowing agents are used, as blowing agents are generally volatile

liquids. Further, Applicants submit that it is well known that isocyanate is generally present in excess, such that the quantity added is usually not carefully weighed.

(Amendment filed October 12, 2006, page 9, second full paragraph). As such, this paragraph discloses that the three formulations of Table A (corresponding to formulations of Example  $\alpha$  comparative (CFC 11), Example  $\gamma$  (composition IV), and Example  $\delta$  of Table 14 on page 33 of the specification are "very similar". In fact, the concentrations of the blowing agents within the three formulations differ of not more than 1% by weight with respect to 100% of the compositions.

Furthermore, as indicated in the last paragraph of page 9 of the Amendment filed October 12, 2006, although the concentrations of the blowing agent were not exactly the same, Table 14 on page 33 of the specification discloses that the formulation of Example  $\gamma$  gave exactly the same foam density of the comparative foaming composition containing CFC-11, and the formulation of Example  $\delta$  gave a value of foam density nearly the same (-0.7%) with respect to the comparative foaming composition.

As the blowing agent concentrations of the tested compositions varied by not more than 1% and had foam densities of "about 30 Kg/cm<sup>3</sup>" (see Table 14 on page 33 and Table A on page 8 of the Amendment filed October 12, 2006), Applicants submit that those of skill in the art would have expected that when the % by weight of the blowing agent in the compositions of the presently claimed invention are the approximately the same as that of CFC-11, the relevant foam densities would be "about 30 Kg/cm<sup>3</sup>." Minor differences in the compositions of Table A are not influential for the solution of the

technical problem of the presently claimed invention -- to find blowing compositions to be used as substitutes for CFC-11 (Specification, page 2, lines 1-3 and page 4, lines 21-23).

For at least the above reasons and the reasons expressed in the remarks in the Amendment filed October 12, 2006, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-10 under 35 U.S.C. § 112, first paragraph, for insufficient written description.

Claims 1-4, 9 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Klug et al. (U.S. Patent Nos. 5,605,882, 5,648,016, and 5,779,931). This rejection is traversed.

Further to the remarks in Applicants' Amendment filed October 12, 2006, Applicants respectfully maintain that the cited patents to Klug et al. do not explicitly or explicitly disclose compositions comprising "(IV) difluoromethoxy bis(difluoromethyl ether) HCF<sub>2</sub>OCF<sub>2</sub>0CF<sub>2</sub>H and 1,1,1,3,3-pentafluorobutane" or "(V) difluoromethoxy bis(difluoromethyl ether) HCF<sub>2</sub>OCF<sub>2</sub>OCF<sub>2</sub>H and 1,1,1,4,4,4-hexafluorobutane" (claims 1 and 9) (emphasis added).

Applicants note that the final Office Action does not cite a passage of Klug et al. disclosing the compositions of the presently claimed invention. Applicants respectfully maintain that the broad disclosure of "compositions that include at least one fluoroether and at least one hydrofluorocarbon" in the Abstracts of the cited patents to Klug et al. does not teach or suggest the particular compositions of the presently claimed invention, much less the unexpected results thereof. As noted by MPEP § 2131.02, "[a] genus does not always anticipate a claim to a species within the genus." In particular, as noted

in Applicants' previously filed remarks, the presently claimed compositions are not clearly disclosed by Klug et al., as the cited patents to Klug et al. do not disclose "1,1,1,3,3-pentafluorobutane ( $\text{CF}_3\text{CH}_2\text{CF}_2\text{CH}_3$ , HFC 365mfc)" of composition IV) or "1,1,1,4,4,4-hexafluorobutane ( $\text{CF}_3\text{CH}_2\text{CH}_2\text{CF}_3$ , HFC 365ffa)" of composition V), much less in combination with the hydrofluorethers of Klug et al. or the "difluoromethoxy bis(difluoromethyl ether) ( $\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$ )" of composition IV) and the "difluoromethoxy bis(difluoromethyl ether) ( $\text{HCF}_2\text{OCF}_2\text{OCF}_2\text{H}$ )" of composition V) in particular, respectively.

As Klug et al. does not disclose each and every element of independent claims 1 and 9, Applicants submit that Klug et al. does not anticipate these claims. Dependent claims 2-4 and 10 are patentable for at least the same reasons. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4, 9, and 10 under 35 U.S.C. § 102(b) over Klug et al.

Claims 1-4, 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Klug et al. This rejection is traversed.

Further to the remarks above and the remarks in the Amendment filed October 12, 2006, Applicants respectfully maintain that the particular combinations of compositions (IV) and (V) of claims 1 and 9 would not have been obvious over the broad disclosure of Klug et al., much less the unexpected advantages thereof.

Applicants respectfully maintain that the technical problem of the presently claimed invention must be considered, as well as the lack of motivation in the disclosure of Klug et al. for one of skill in the art to solve this technical problem, much less in the manner of

the presently claimed invention. Applicants again emphasize that Klug et al. does not disclose CFC-11, much less the substitution of CFC-11 in its entirety with the compositions of the presently claimed invention or the unexpected advantages thereof.

Further, Applicants respectfully submit that the Declaration of Dr. Basile demonstrates that it would not have been obvious to those of skill in the art based upon the disclosure of Klug et al. to select a foaming composition of a hydrofluoroether and a hydrofluorocarbon that could solve the technical problem of the presently claimed invention. In particular, the Declaration demonstrates that the particular solution found by the Applicant was not obvious in view of Klug et al., as all of the seven azeotropic or near azeotropic compositions of Klug et al. (see the '842 patent to Klug et al., Table 1, column 10-11) that were tested in the Declaration did not work as substitutes of CFC 11 in foaming formulations.

As Klug et al. do not teach or suggest all of the elements of the claims 1-4, 9 and 10, Applicants again submit that these claims would not have been obvious to those of skill in the art over the disclosures of the cited patents to Klug et al., alone or in combination. As such, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4, 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Klug et al.

Claims 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Klug et al. in view of Barthelemy et al. (U.S. Patent No. 5,304,320). This rejection is traversed.

Please see the above discussion distinguishing claim 1 from the cited patents to Klug et al. As claims 5-7 are dependent upon claim 1, Applicants submit that claims 5-7 are patentable for at least the same reasons as claim 1.

Further, Applicants respectfully maintain that Barthelemy et al. does not satisfy the deficiencies of the cited patents to Klug et al. Please see Applicants remarks in the Amendments filed January 4, 2005 and October 12, 2006.

As the cited references do not teach or suggest all of the elements of claims 5-7, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 5-7 under 35 U.S.C. § 103(a) over the cited patents to Klug et al. in view of Barthelemy et al.

III. **Conclusion**

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 108910-00123.

Respectfully submitted,



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Enclosures: Request for Continued Examination  
Petition for Extension of Time (one-month)